



DATA SHEET

WAVE SOLDER TROUBLESHOOTING GUIDE

CAUSE	Solder temp. high	Solder temp. low	Solder wave height high	Solder wave height low	Solder wave uneven	Solder contaminated	Excessive solder dross	Preheat temp. high	Preheat temp. low	Flux contaminated	Flux specific gravity low	Flux specific gravity high	Flux no longer active	Flux not making contact	Flux foamhead low	Fluxer uneven	Flux blow-off excessive	No flux blow-off	Pallet too hot	Conveyor speed high	Conveyor speed low	Conveyor vibration	Conveyor angle high	Conveyor angle low	Early removal of board	Board not seated right
SYMPTOM																										
Insufficient solder flow thru	●	●		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●			●			●
Insufficient solder (solder side)	●			●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●			●			●
De-wetting or non-wetting		●		●		●			●	●	●	●	●	●	●	●	●	●	●	●						●
Solder voids or outgassing	●	●		●	●				●	●	●	●	●	●	●	●	●	●	●	●			●			●
Excessive solder (solder side)		●			●	●					●	●	●			●		●	●	●				●		●
Icicles		●		●	●	●		●	●	●	●		●	●	●	●	●	●	●			●		●	●	●
Bridging		●		●	●	●		●	●	●	●		●	●	●	●	●	●	●					●		
Webbing		●				●	●	●		●	●		●	●	●	●	●	●	●			●				
Solder balls and splatter	●		●		●				●	●	●							●		●						
Rough or disturbed solder		●		●	●	●	●													●				●	●	●
Grainy solder		●				●	●		●											●				●	●	●
Cold solder joint	●	●				●			●	●										●			●		●	●
Discoloured solder joint	●					●		●	●	●										●						
Flux entrapment									●	●		●						●		●						
Blistering	●							●														●				
Measling	●							●														●				
Components lifted			●		●												●					●	●		●	●
Warpage	●							●	●													●				●